

University of New England)	Departmental
Cumberland County)	Findings of Fact and Order
Portland, Maine)	Air Emission License
A-111-71-F-M/R)	

After review of the air emissions license amendment application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

University of New England (UNE) of Portland, Maine has applied to renew their Air Emission License permitting the operation of emission sources associated with their Westbrook College Campus.

UNE has requested a minor revision to their license in order to update the license to reflect a previously existing gasoline dispensing facility, solvent degreasers, and a small natural gas fired boiler.

B. Emission Equipment

UNE is authorized to operate the following equipment:

Fuel Burning Equipment

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Maximum Firing Rate (gal/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Stack #</u>
Boiler #1	10.5	69.5	#6 fuel oil, 0.5%	1
Boiler #2	2.9	20.0	#4 fuel oil, 1.0%	2
Boiler #3	2.9	20.0	#4 fuel oil, 1.0%	2
Boiler #4	4.4	30.0	#4 fuel oil, 1.0%	3
Boiler #5	1.0	980 scf/hr	natural gas, neg.	4

C. Application Classification

The application for UNE does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of current licensed emission units only.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Air Regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in Chapter 100 of the Air Regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emission from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Boiler #1

Boiler #1 is a 10.5 MMBtu/hr boiler which fires #6 fuel oil. Boiler #1 was manufactured after June 9, 1989 and has a heat input capacity greater than 10.0 MMBtu/hr and is therefore subject to EPA New Source Performance Standards (NSPS) Subpart Dc.

Based on the relatively small size of Boiler #1 and the quantity of pollutants that could potentially be emitted, it is determined by the Bureau of Air Quality that any add-on pollution control device would be economically unjustified.

A summary of the BACT analysis for each of the pollutants is discussed below:

1. PM and PM₁₀ emission rates are based upon MEDEP Chapter 103.

2. SO₂, NO_x, CO and VOC emission rates are based upon AP-42 data dated 9/98 for fuel oil combustion.
3. Visible emissions from Boiler #1 shall not exceed 30% opacity on a six-minute block average basis.

C. Boilers #2, #3 and #4

Boilers #2, #3 and #4 have maximum input capacities of 2.9 MMBtu/hr, 2.9 MMBtu/hr and 4.4 MMBtu/hr, respectively. All three units fire #4 fuel oil. Boilers #2, #3, and #4 each have maximum input capacities of less than 10.0 MMBtu/hr, and are therefore not subject to NSPS Subpart Dc.

Based on the relatively small size of Boilers #2, #3, and #4 and the quantity of pollutants that could be emitted, it is determined by the Bureau of Air Quality that any add-on pollution control device would be economically unjustified.

A summary of the BPT analysis for each of the pollutants is discussed below:

1. PM and PM₁₀ emission rates are based upon MEDEP Chapter 103.
2. SO₂, NO_x, CO and VOC emission rates are based upon AP-42 data dated 9/98 for fuel combustion.
3. Visible emissions from the combined stack of Boilers #2 and #3 shall be limited to 40% opacity on a six-minute block average basis, except for no more than 3 six-minute block averages in any three-hour period. Visible emissions from Boiler #4 shall be limited to 30% opacity on a six-minute block average basis, except for no more than 2 six-minute block averages in any three-hour period.

D. Boiler #5

Boiler #5 is a 1.0 MMBtu/hr furnace and fires natural gas. Boiler #5 was manufactured in 1990 and installed in 1991. Since the unit is rated at less than 10.0 MMBtu/hr, it is not subject to NSPS Subpart Dc.

Based on the relatively small size of Boiler #5 and the quantity of pollutants that could be emitted, it is determined by the Bureau of Air Quality that any add-on pollution control device would be economically unjustified. Since this is the first time the unit has been included on a license application, BACT will be applied.

A summary of the BACT analysis for each of the pollutants is discussed below:

1. PM and PM₁₀ emission rates are based upon BACT best conservative estimate.
2. SO₂, NO_x, CO and VOC emission rates are based upon AP-42 data dated 7/98 for natural gas combustion.
3. Visible emissions from Boilers #5 shall be limited to 10% opacity on a six-minute block average basis.

E. Degreasers

UNE's solvent degreasers are subject to Chapter 130 of the Department's regulations including, but not limited to proper labeling, closing cover when not in use, and exclusion from degreasing of porous materials. By meeting requirements set forth in Chapter 130, UNE degreasers shall be considered to be receiving BACT.

F. Gasoline Dispensing

By meeting the regulations set forth in MEDEP Chapter 118, UNE's gasoline service station is controlling emissions in a similar manner to dispensing facilities of similar size and use, and as such, is considered to be meeting BACT. Chapter 118 includes, but is not limited to, a submerged fill pipe which extends to within six inches of the bottom of the stationary gasoline tank.

G. Annual Emission Restrictions

UNE shall be restricted to the following annual emissions, based on a 12-month rolling total:

Total Allowable Annual Emission for the Facility
(used to calculate the annual license fee)

<u>Pollutant</u>	<u>Tons/Year</u>
PM	2.7
PM ₁₀	2.7
SO ₂	11.3
NO _x	4.6
CO	0.8
VOC	0.2

III.AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Based on the total facility emissions, UNE is below the emissions level required for modeling and monitoring.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-111-71-F-M/R subject to the following conditions:

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions.
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.

- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. § 353.
- (6) The license does not convey any property rights of any sort, or any exclusive privilege.
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
 - (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - b. pursuant to any other requirement of this license to perform stack testing.
 - (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - (iii) submit a written report to the Department within thirty (30) days from date of test completion.

- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - (iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.

SPECIFIC CONDITIONS

(16) Boiler Emission Sources

- A. Capacity shall not exceed 10.5 MMBtu/hr in Boiler #1, 2.9 MMBtu/hr each in Boilers #2 and #3, 4.4 MMBtu/hr in Boiler #4, and 1.0 MMBtu/hr in Boiler #5.
- B. Fuel use shall not exceed 150,000 gallons/yr fuel oil on a 12-month rolling total with a maximum sulfur content of 0.5% by weight in #6 fuel oil, and a maximum sulfur content of 1.0% by weight in #4 fuel oil. Fuel use records shall be maintained on a monthly basis, in addition to the 12 month rolling total.
- C. Emissions shall not exceed the following:

Equipment		PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Boiler #1	lb/MMBtu	0.10	-	-	-	-	-
	lb/hr	1.05	1.05	5.5	3.85	0.35	0.06
Boiler #2	lb/MMBtu	0.20	-	-	-	-	-
	lb/hr	0.58	0.58	3.11	0.42	0.11	0.02
Boiler #3	lb/MMBtu	0.20	-	-	-	-	-
	lb/hr	0.58	0.58	3.11	0.42	0.11	0.02
Boiler #4	lb/MMBtu	0.20	-	-	-	-	-
	lb/hr	0.88	0.88	4.71	0.63	0.16	0.03
Boiler #5	lb/MMBtu	0.12	-	-	-	-	-
	lb/hr	0.12	0.12	0.01	0.10	0.09	0.01

- (17) Visible emissions from Boilers #1 and #4 shall not exceed 30% opacity on a six-minute block average basis except for no more than 2 six-minute block averages in any three-hour period.
- (18) Visible emissions from Boilers #2 and #3 shall not exceed 40% opacity on a six-minute block average basis except for no more than 3 six-minute block averages in any three-hour period.
- (19) Visible emissions from Boiler #5 shall not exceed 10% opacity on a six-minute block average basis.
- (20) Compliance with the sulfur content cap of 0.5% sulfur by weight for Boiler #1 and 1.0% sulfur by weight for Boilers #2, #3, and #4 shall be demonstrated by the documentation of the sulfur content for each oil shipment received for firing.

University of New England
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A-111-71-F-M/R

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**Departmental
Findings of Fact and Order
Air Emission License**

- (21) Reports shall be submitted every six months pursuant to 40 CFR Part 60, Subpart Dc, 60.48c(d) reporting the fuel sulfur content of shipments received for Boiler #1. Each report shall be submitted to the Department within 30 days of the end of each reporting period.
- (22) Degreasers shall be maintained and operated in accordance with the requirements of MEDEP Chapter 130.
- (23) Gasoline storage and dispensing facilities shall be maintained and operated in accordance with the requirements of MEDEP Chapter 118.
- (24) The term of this Order shall be for five (5) years from the signature below.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2000.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
MARTHA G. KIRKPATRICK, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: March 6, 2000

Date of application acceptance: March 28, 2000

Date filed with the Board of Environmental Protection: _____

This Order prepared by Elisha McVay, Bureau of Air Quality.